Claims

1. A filter element (F) for fluids, with an inner, essentially hollow supporting core (10) and at least one filter layer (12-14) arranged on it,

the inner supporting core (10) being formed in one piece with a first end plate (20) and a second end plate (30),

the first end plate (20) having a connecting piece (22) which is formed in one piece with it and is fluid-connected to the supporting core (10), and

the second end plate (30) having a receptacle (32) formed in it, which is fluid-connected to the supporting core (10) and is adapted to the shape of the connecting piece (22) in such a way that a connecting piece (22) of a second structurally identical filter element (F) can be at least partially inserted into the receptacle (32) in order to permit a fluid connection between the supporting cores (10) of the filter elements (F).

2. The filter element as claimed in claim 1, a latching device (24, 25) which releasably latches two filter elements (F) that are connected to one another by means of the connecting piece (22) and the receptacle (32) being provided.

3. The filter element as claimed in claim 2, the latching device (24, 25) having at least one bayonet key (25) and at least one bayonet lock (24) which can be connected to the latter.

4. The filter element as claimed in claim 2 or 3, the latching device (24, 25) having such a progression of the releasing moment that the releasing moment has a maximum in the azimuthal direction.

5. The filter element as claimed in claims 3 and 4, the bayonet lock (24) having at its distal end a projection (24A), which can be inserted into an essentially corresponding recess (25A) of the bayonet key (25), in order to define the maximum of the releasing moment.

6 . The filter element as claimed in claim 4 or 5, the value of the maximum of the releasing moment being increased by a gravitational force acting on the filter element (F).

7. The filter element as claimed in one of the preceding claims, the connecting piece (22) and/or the receptacle (32)

being provided with a sealing device (26), which preferably has one or more peripheral seals (26).

8. The filter element as claimed in one of the preceding claims, a closure cap (40) being at least partially insertable into the receptacle (32) for closing the receptacle (32).

9. The filter element as claimed in claim 8 and claim 2, the closure cap (40) having a latching element (24') that is adapted to the latching device (24, 25) for latching to the filter element (F).

10. The filter element as claimed in one of the preceding claims, the filter layer (12-14) having at least one pleated membrane (13).

11. The filter element as claimed in one of the preceding claims, the filter layer (12-14) having a deep-bed filter (13) consisting of fibers.

12. A filter device for fluids, having:

a housing which has an inlet for the fluid to be filtered and an outlet for the filtrate, and

at least one unit comprising at least two filter elements (F) as claimed in one of the preceding claims, which are connected to one another by means of the respective connecting piece (22) and the respective receptacle (32),

the outlet being fluid-connected to a receptacle on the housing side, into which the connecting piece (22) of one of the at least two filter elements (F) of each unit can be at least partially inserted in order to establish a fluid connection between the outlet and the supporting cores (10) of the units comprising at least two filter elements (F).